

MINE SAFETY INVESTIGATION UNIT

INFORMATION RELEASE

Fatality

Incident date	6 September 2015
Event	Fatality in underground mine
Location	Ridgeway Mine, Cadia (near Orange) NSW

Overview

A mineworker was found trapped between the rear of the mobile plant he was operating and the sidewall of an underground extraction drive. He suffered fatal injuries.



Photograph of the mobile plant and drive taken by an Investigator on 8 September 2015 (after recovery of deceased worker). Photograph taken from north of underground drive looking south.

The mine

The Ridgeway Mine is a large underground gold and copper mine located in the Cadia Valley, about 25 km southwest of Orange, New South Wales.

The mine is part of Cadia Valley Operations (CVO), one of Australia's largest gold mining operations and is owned by Newcrest Mining Limited. CVO comprises Cadia East and Ridgeway underground mines.

The Ridgeway Mine uses the block cave mining method to extract ore. This mining technique involves the development of an undercutting level and extraction level below the targeted 'block' within the ore body. Draw bells are constructed between the two levels. Once development is complete, the cave is initiated by longhole drilling and blasting of the ore from the undercut level, and the overlying ore caves naturally into the draw bells under the effects of stress and gravity.

Each draw bell has two draw points from which ore is recovered by load haul dump (LHD) underground loaders, causing the block of ore above to progressively cave towards the surface. The LHD machines transport the ore to ore passes, where it gravitates to an underground crushing station before being hoisted to the surface via conveyor belt.

The incident

The deceased worker commenced night shift and travelled underground about 7pm. He was working alone and was last seen by other workers about 9pm.

The worker was operating a Jacon Maxijet during the shift (the Jacon). The Jacon had been modified from a shotcreting machine to a water cannon. The water cannon boom was operated by remote control.

The incident occurred at the 4786 level in Extraction Drive 10 at the East 6 draw point (10E6), about 1100 metres below the surface of the mine.

Rock and other unconsolidated material had hung-up in the 10E6 draw point. The Jacon was intended to be used to water blast the hung-up material in an attempt to cause it to fall into the draw point so that it could be removed by a LHD.

The Jacon was positioned facing into the draw point. The water cannon boom was extended toward the brow beam.

During the task, it appears that there was a rapid movement of rock and material from the draw point into the extraction drive.

The material impacted the front of the Jacon. For this or other reasons, the Jacon moved backwards trapping the worker between the Jacon and the side wall of the extraction drive.

The worker received fatal injuries.

At about 10.15 pm, another mineworker found the deceased and initiated an emergency response.

The mobile plant

The Jacon Maxijet is a mobile shotcrete machine manufactured by Jacon Technology. The Jacon had been modified to a water cannon. There are three Jacon water cannon machines at CVO.

The investigation

NSW Mine Safety Inspectors and NSW Police responded to the incident immediately.

The NSW Mine Safety Investigation Unit has commenced an investigation to determine the cause and circumstances of the incident.

The mine is cooperating with the investigation.

An investigation report will be prepared for the Secretary of NSW Department of Industry.

Safety observations

The rapid movement and inundation of material into mine workings are well known hazards to the underground metalliferous mining industry.

The consequences include engulfment of personnel, machinery or entrapment which can result in serious injuries and/or fatalities.

Control measures will differ depending on the material and whether it is wet or dry.

Where draw points are either choked or hung up, the potential for a sudden movement of material must be considered and an assessment made to ensure appropriate control measures are in place prior to any work being undertaken.

Control measures should include sufficient bunds to prevent movement of material, safe standing and operating zones for mobile machine operators, and safe means of egress.

Systems should also be implemented to ensure that persons working alone are regularly monitored.

About this information release

The Mine Safety Investigation Unit has issued this information to draw attention to the occurrence of a serious incident in the mining industry. The investigation is ongoing. Further information may be published as it becomes available.

The information contained in this publication is based on knowledge and understanding at the time of writing. However, because of advances in knowledge, users are reminded of the need to ensure that the information upon which they rely is up to date and to check the currency of the information with the appropriate officer of the Department of Industry, Skills and Regional Development or the user's independent adviser.

Information about the Investigation Unit and its publications can be found at: www.resourcesandenergy.nsw.gov.au/miners-and-explorers/safety-and-health/major-investigations

For information about health and safety regulation on mine sites contact a mines inspector at one of our local offices www.resourcesandenergy.nsw.gov.au/miners-and-explorers/safety-and-health/mine-safety-offices

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